

Editorial

Vertigo



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Vertigo is a symptom, rather than a condition itself. It is a sensation that a person or the environment around a person is moving or spinning.

This feeling may barely be noticeable or it may be so severe that a person finds it difficult to keep his balance while doing everyday tasks. The attack of vertigo can develop suddenly and last for few seconds, or they may last much longer. In case of severe vertigo the symptoms may be constant and last for several days, making normal life difficult.

Other symptoms associated with vertigo may include —

- Loss of balance – which can make it difficult to stand and walk.
- Feeling sick or being sick
- Dizziness.

Causes of Vertigo :

Vertigo is commonly caused by a problem with the way balance works in the inner ear, although it can also be caused by problems in certain parts of the brain.

- Benign paroxysmal postural vertigo—where certain head movements trigger vertigo.
- Migraines – severe headaches.
- Labyrinthitis – an inner ear infection.
- Vestibular neuromas – inflammation of the vestibular nerve, which runs into the inner ear and sends messages to the brain that help to control balance.
- Meniere's disease – here some people have repeated episodes for many months or even years.

Symptoms of Vertigo :

Vertigo is often triggered by a change in the position of head. People with vertigo typically describe it as feeling like

- Spinning
- Tilting
- Swaying
- Unbalanced
- Pulled in one direction

Other Symptoms That May Accompany Vertigo Include :

- Feeling nauseated
- Vomiting
- Abnormal or jerking eye movements (Nystagmus)
- Headache
- Sweating
- Ringing in the ears or hearing loss

Ear Related Causes : —

BPPV ie, Benign Paroxysmal Postural Vertigo :

It occurs when tiny calcium particles (canaliths) clump in the canals of the inner ear. The inner ear sends signals to the brain about head and body movements relative to gravity that help to keep one's body balance. BPPV can occur for no reason and may be associated with age.

Meniere's Disease :

This is an inner ear disorder thought to be caused by a buildup of fluid and changing pressure in the ear. It can cause episodes of vertigo along with ringing in the ears (tinnitus) and hearing loss.

Vestibular Neuritis or Labyrinthitis :

This is an inner ear problem usually related to infection (usually viral). The infection causes inflammation in the inner ear around nerves that are important for helping the body sense balance.

Other Causes of Vertigo :

Vertigo may arise from the damage to central nervous system (CNS) often from a lesion in the brainstem or cerebellum. Then it is called as central vertigo. These are : —

- Infraction In The Brain
- Haemorrhage In Brain
- Tumor In The Cerebello-pontine Angle Such As Vestibular Schwannoma
- Epilepsy
- Cervical Spondylosis
- Migraine Headache
- Lateral Medullary Syndrome
- Chiari Malformation
- Multiple Sclerosis
- Parkinsonism.

Central vertigo may not improve or may do so more slowly than vertigo caused by peripheral structure like inner ear problem.

Vertigo in Orthopaedics : —

Cervical spondylosis (advanced neck bone arthritis) may be another potential cause of neck related dizziness. This condition causes the vertebra and disc to wear and tear over time. When this system works improperly, receptors cannot communicate to the brain and causes dizziness and other sensory dysfunction. Poor neck posture neck disorders and/ or trauma to cervical spine cause this condition.

There are several potential causes of cervical vertigo, though this condition is still being researched. Blockage of arteries in the neck from hardening (atherosclerosis) or tearing of these arteries (dissection) may cause vertigo, by disruption of blood flow to the inner ear or to lower brain region called the brainstem. Arthritis, surgery, and trauma to the neck can also block blood flow to these important region, resulting in vertigo.

Cervical spondylosis may be another potential cause of neck related dizziness. In this condition there is degeneration of neck vertebra and discs due to constant wear & tear. The degenerated structures put pressure on the spinal cord and spinal nerves and block flow to the brain and internal ear. A slipped disc alone without any spondylosis can do the same.

The muscles and joints in the neck have receptors that send signals about head movement and orientation to the brain and vestibular apparatus in the inner ear responsible for

balance. This system also works with a larger network in the body to maintain balance and muscle coordination. When the system works improperly, receptors can't communicate to the brain, causing dizziness and other sensory dysfunction.

Dizziness from cervical vertigo can last minutes or hours. If neck pain decreases, the dizziness also begin to subside. Symptoms may worsen after exercise, rapid movements and sometimes sneezing.

Treatment for vertigo : —

Treatment for vertigo depends on what's causing it. In many cases vertigo goes away without any treatment. This is because the brain is able to adapt, at least in part, to the inner ear changes, relying on other mechanisms to maintain balance.

For some treatment is needed and may include:

(1) Vestibular Rehabilitation :

This is a type of physical therapy aimed of helping strengthen the vestibular system. The function of vestibular system is to send signals to the brain about the head and body movements relative to gravity. Vestibular rehabilitation is recommended when there is repeated bout of vertigo.

(2) Canalith Repositioning Maneuvers :

Guidelines from the American Academy of Neurology recommend a series of specific head and body movements for BPPV. The movements are done to move the calcium deposits out of the canal in the internal can chamber, so they can be absorbed by the body. A doctor or physical therapist will guide and these movements are effective and safe.

(3) Medicines : In some cases, medication may be given to relieve symptoms such as nausea and motion sickness associated with vertigo.

(4) If the vertigo is caused by an infection or inflammation, antibiotics and / or steroids may reduce the swelling and cure infection.

(5) For Meniere's disease, diuretics may be prescribed to reduce pressure from fluid buildup.

(6) Surgery : In a very few cases surgery may be needed for vertigo.

(7) If vertigo is caused by more serious underlying problems, such as tumour, injury to brain or neck, treatment for those problems may alleviate the vertigo.

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